

REMARKS/ARGUMENTS

The Examiner is thanked for the performance of a thorough search and for reviewing the Information Disclosure Statements filed on March 30, 2004.

Prior to entry of this response, Claims 1-41 were pending in the application. By this response, Claims 1, 21-41 have been amended. Hence, Claims 1-41 are pending in the application.

The amendments to the claims and the new claims do not add any new matter to this application. All issues raised in the Office Action mailed May 1, 2007 are addressed hereinafter.

SUMMARY OF THE REJECTIONS/OBJECTIONS

Claims 21-40 were rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter.

Claims 1-41 were rejected under 35 U.S.C. § 112, second paragraph as allegedly having an indefinite, and thus, an indeterminable scope. Claim 1 allegedly had missing elements and consequently, the scope of Claim 1 was vague and ambiguous. Claims 2-40 depend on Claim 1, and were therefore, likewise rejected. Claim 41 is substantially similar to Claim 1, and was therefore likewise rejected.

Claims 1-41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,473,772 to Barrett, Jr. et al. (hereinafter "*Barrett*") in view of U.S. Patent Number 7,149,738 issued to Kumar et al. (hereinafter "*Kumar*").

ISSUES NOT RELATED TO PRIOR ART

Rejections under 35 USC §101 - Claims 21-40

Claims 21-40 were rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter under the rationale that the subject matter recited by Claims 21-40 may encompass transmission media subject matter, which is non-statutory subject matter.

Claims 21-40, as amended, clarify that each is directed towards either a computer-readable storage medium or an apparatus comprising a computer-readable storage medium that stores instructions. Accordingly, the rejections to Claims 21-40 made under 35 U.S.C. § 101 have been overcome by the amendment and remarks made herein.

Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 1-41 were rejected under 35 U.S.C. § 112, second paragraph as allegedly having an indefinite and thus, an indeterminable scope. Claim 1 allegedly had missing elements and consequently, the scope of Claim 1 was vague and ambiguous. Claims 2-40 depend on Claim 1, and were therefore, likewise rejected. Claim 41 is substantially similar to Claim 1, and was therefore likewise rejected.

Amended Claim 1 clarifies that the one or more conditions, from the first set, are used to determine whether a corresponding action preference should be performed.

For the reasons given above, it is respectfully submitted that Claims 1-41, which state recited steps that clearly and particularly describe the invention, therefore satisfy 35 U.S.C. § 112, second paragraph.

ISSUES RELATED THE PRIOR ART

Claims 1-41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Barrett* in view of *Kumar*.

The pending claims are patentable over the cited art

Each of the pending claims recite at least one element that is not disclosed, taught, or suggested by the cited art, either individually or in combination.

Claim 1

Claim 1 features:

receiving an expression that identifies an event structure, a first set of one or more conditions related to said event structure, and one or more action preferences in association with said event structure, wherein said event structure defines an event that corresponds with said event structure by defining a set of attributes that describe features of a corresponding event;
storing said event structure, said first set of one or more conditions, and said one or more action preferences in said database;
during a database session,
receiving a first event,
detecting that said first event is an occurrence of said event by
comparing said first event to said event structure and
determining that said first event corresponds with said event structure,
based on said detecting, selecting said first set of one or more conditions for evaluation against said first event, and
determining whether said first event satisfies any of said one or more conditions in said first set; and
in response to determining that said first event satisfies any second set of one or more conditions in said first set, then causing performance of an action corresponding to said one or more corresponding action preferences.

(Emphasis added.) At least the above-bolded features of Claim 1 are not disclosed, taught, or suggested by *Barrett* in view of *Kumar*.

The Approach of Claim 1

Claim 1 involves receiving and storing an expression (e.g., a SQL expression) identifying an event structure which defines a set of attributes that specify features of a corresponding event. The method recited in Claim 1 includes detecting that a particular event is in fact an occurrence of an event defined by the event structure, by comparing the particular event with the event structure. Before identifying, selecting, and evaluating conditions relating to a particular type of event, it first needs to be determined of what event type a particular event is. Resources would be wasted by trying to evaluate conditions in view of inapplicable events, i.e., events of a different type than the type of event to which the conditions apply. Such determination is made based on comparing the event structure with the particular event. Thus, once it is determined of what event type a particular event is, the corresponding conditions can be identified and selected from storage in the database, for evaluation against the event.

Claim 1 describes how an event structure, a set of one or more conditions related to said event structure, and one or more action preferences related to said event structure, are received and stored in a database as described in paragraph [0014].

Claim 1 also describes comparing a received event to an event structure and determining whether the conditions associated with that event structure are applicable to the event, as described in paragraphs [0015] and [0017]. If the conditions are applicable, satisfaction of those conditions is determined.

The Approach of *Barrett*

Barrett discloses sharply contrasting subject matter than that recited by Claim 1, as *Barrett* lacks any teaching or suggestion of an event structure defined as a set of attributes that describe features of a corresponding event. The cited approach of *Barrett* states that an event structure specifies a mapping of causes and effects (See *Barrett*, Col.

7 Ln. 10-12). The event structure, under *Barrett*, does not describe specific attributes of a particular event type, but simply associates effects to corresponding causes.

In *Barrett*, rather than storing attributes of a specific type of event (an event structure as defined by Claim 1), the conditions associated with that specific type of event, and the action preferences for that event, the cited approach of *Barrett* stores observed events (observed by monitors) and maps of causes to effects (rules) (See *Barrett* Abstract discussing storage of event data and rules in data structures). The precise attributes that define a specific type of event (an event structure as described by Claim 1) and the conditions associated with that specific type of event, are not stored in the database.

Differences Between Claim 1 and the Cited Art

The Office Action asserts that *Barrett* teaches storing the event structure, conditions related to said event structure, and action preferences related to said event structure, in the database. *Barrett* may store observed events and maps from causes to effects in the database, but *Barrett* does not store event structures as explicitly defined in Claim 1 (See *Barrett* Abstract in context of Col. 7 Ln. 9-17 which discusses event structures that provide cause and effect mapping). The event structures of *Barrett* do not store specific attributes of a particular type of event, but store specified effects associated with causes. Unlike Claim 1, with *Barrett*, it is not possible to perform the real-time detection of particular events by comparing incoming events with one or more event structures stored in the database. *Barrett* simply stores observed events and maps of causes to effects.

The Office Action asserts that *Barrett* teaches detecting an occurrence of an event by detecting when an event occurs that complies with the corresponding event structure.

Barrett does indeed test for a cause corresponding to an observed event, but *Barrett* does not teach or suggest the event structure mechanism or the storage of this event structure, as recited in Claim 1, for determining whether an event is in fact an event that is to be evaluated against a particular set of condition(s). The triggering events of *Barrett* do not detect that a particular event corresponds to a particular event structure and therefore is to be evaluated in the context of a corresponding set of condition(s) by comparing the particular event with a stored event structure that defines the event type.

The foregoing discussion shows that no combination of the cited references of *Barrett* and *Kumar* teach or suggest each and every limitation of Claim 1. *Kumar* is cited by the Office Action as teaching a limitation of claim 1 (Claim 1 Ln. 20-24, starting with “in response to determining...””) and even though the examiner is correct in concluding that said feature is a common feature, *Barrett* and *Kumar* do not teach or suggest all of the features of Claim 1. Furthermore, an important and novel feature of this invention is the storing of event structures in association with the one or more conditions and action preferences in said database. This inventive feature is covered by a limitation in Claim 1. This limitation is not described or suggested anywhere in the cited references. Hence, no possible combination of *Barrett* and *Kumar* could result in the embodiment recited in Claim 1. One of ordinary skill in the art would not be able to derive the embodiment of Claim 1 from the cited references and, consequently, this embodiment would not be obvious in view of the cited references. Thus, Claim 1 is patentable under 35 U.S.C. § 103(a) over *Barrett* in view of *Kumar*. Reconsideration and withdrawal of the rejection of Claim 1 is respectfully requested.

Independent Claim 41

Claim 41 was rejected under 35 U.S.C. § 103(a) as allegedly anticipated by *Barrett* in view of *Kumar*.

Claim 41 includes features similar to the features of Claim 1 as discussed above. Thus, Claim 41 is patentable under 35 U.S.C. § 103(a) over *Barrett* in view of *Kumar* for at least the reasons given above with respect to Claim 1. Reconsideration and withdrawal of the rejection of Claim 41 is respectfully requested.

Dependent Claims 2-40

Claims 2-40 were objected to under 35 U.S.C. § 103(a) as allegedly anticipated by *Barrett* in view of *Kumar*, but would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims.

Each of Claims 2-40 depend on independent Claim 1, directly and indirectly, and consequently include each and every feature of the independent base claim. Thus, each of Claims 2-40 are allowable for the reasons given above for Claim 1. However, due to the fundamental differences already identified and to expedite the positive resolution of this case, a separate discussion of those features is not included at this time. Therefore, it is respectfully submitted that Claims 2-40 are allowable for the reasons given above with respect to Claim 1. Reconsideration and withdrawal of the rejections of Claims 2-40 are respectfully requested.

CONCLUSION

It is respectfully submitted that all of the pending claims are in condition for allowance and the issuance of a notice of allowance is respectfully requested. If there are any additional charges, please charge them to Deposit Account No. 50-1302.

The Examiner is invited to contact the undersigned by telephone if the Examiner believes that such contact would be helpful in furthering the prosecution of this application.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

on June 29, 2007

By



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